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10/521,318	10/05/2005	Koichi Otsuki	Q85515	9172
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SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037				
EXAMINER				
GOLDBERG, BRIAN J				
ART UNIT		PAPER NUMBER		
2861				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
kglyndman@sughrue.com
USPatDocketing@sughrue.com

Office Action Summary

Application No.

10/521,318

Applicant(s)

OTSUKI, KOICHI

Examiner

BRIAN J. GOLDBERG

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 24-32 and 36 are objected to because of the following informalities:
2. In line 8 of claim 24 and line 11 of claim 36, the term "recording heat" is used instead of "recording head." Appropriate correction is required.
3. Claims 25, 26, and 27 recite "the ON/OFF of the operation" in line 2 of the claims. There is insufficient antecedent basis for this limitation in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 24, 26, 29-32, and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of Iida (US 5671163)
3. Regarding claim 24, Ham discloses "a carrying section that carries a recording medium (21 of Fig 2A and 3A); a detection section (32 of Fig 3A,B) that can move in a direction that intersects (see Fig 2 and 3 where detection section moves in direction intersecting carrying direction) the carrying direction of said recording medium (vertical direction of Fig 2, right to left of Fig 3) and that is for detecting a width of said recording medium in the direction that intersects the carrying direction of said recording medium (col 4 ln 44-57, col 5 ln 10-26, col 6 ln 31-50); a recording head that ejects liquid to

record recording information (31 of Fig 2A,B); and a controller that, in case that an operation through which said detection section detects the width of said recording medium is set to ON, makes said recording head eject the liquid after performing the operation (col 4 ln 40-43, col 6 ln 61 – col 7 ln 3)...” Ham also discloses that the operation can be set to OFF. Thus Ham meets the claimed invention except “in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation.”

4. It is common in the art to perform printing without detecting the width of the recording medium. For example, Iida teaches “in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation (col 8 ln 43-59).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to print even when the width detection operation is not used, as taught by Iida, in the apparatus of Ham to achieve the predictable results of performing faster printing when the size of the paper does not matter, as stated by Iida. It should also be noted that Ito et al. (US 5609426) at col 22, ln 49-54, and Ko (US 5661550) at col 1 ln 58-61, also teach similar embodiments in which printing is performed without the width detection.

5. Regarding claim 26, Ham discloses “wherein the ON/OFF of the operation through which said detection section detects the width of said recording medium is initially set to either one of ON and OFF in accordance with a type of said recording medium (see Figs 4A,B, where different size recording mediums are shown such that the operation described with regards to claim 24 above can occur or not (col 6 ln 61 –

col 7 ln 3) based on the type of recording medium).” Further, since the limitation set forth in this claim is directed to a method of using the claimed apparatus, the apparatus disclosed by Ham must only be capable of performing such a method step.

6. Regarding claim 29, Ham discloses “said detection section detects the width of said recording medium before said recording head starts the recording of the recording information to the recording medium (step S14 occurs before S16 of Fig 5).” Further, since the limitation set forth in this claim is directed to a method of using the claimed apparatus (or the order of method steps of use), the apparatus disclosed by Ham must only be capable of performing such a method step.

7. Regarding claim 30, Ham discloses “said detection section moves in the direction that intersects the carrying direction of said recording medium and detects the width of said recording medium based on whether or not said recording medium is present (col 4 ln 44-57, col 5 ln 10-26, col 6 ln 31-50).” Further, since the second limitation set forth in this claim is directed to a method of using the claimed apparatus, the apparatus disclosed by Ham must only be capable of performing such a method step.

8. Regarding claim 31, Ham discloses “said detection section (32) and said recording head (31) are both provided in/on a moving member (30 of Fig 3A,B) for moving in the direction that intersects (see Fig 2 and 3 where detection section moves in direction intersecting carrying direction) the carrying direction of said recording medium (vertical direction of Fig 2, right to left of Fig 3).”

9. Regarding claim 32, Ham discloses “said detection section has a light-emitting member (12b of Fig 2 and 3) for emitting light and a light-receiving member (32 of Fig 2

and 3) for receiving the light that is emitted by said light-emitting member, and detects whether or not said recording medium is present based on an output value of said light-receiving member (col 3 ln 57-60, col 4 ln 51-57)."

10. Regarding claims 34 and 35, Ham discloses "carrying a recording medium (21 of Fig 2A and 3A); in case that an operation through which a detection section detects the width of said recording medium is set to ON, making a recording head eject the liquid after performing the operation (col 4 ln 40-43, col 6 ln 61 – col 7 ln 3)...". Ham also discloses that the operation can be set to OFF. Thus Ham meets the claimed invention except "in case that the operation is set to OFF, making said recording head eject the liquid without performing the operation."

11. It is common in the art to perform printing without detecting the width of the recording medium. For example, Iida teaches "in case that the operation is set to OFF, making said recording head eject the liquid without performing the operation (col 8 ln 43-59)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to print even when the width detection operation is not used, as taught by Iida, in the apparatus of Ham to achieve the predictable results of performing faster printing when the size of the paper does not matter, as stated by Iida. It should also be noted that Ito et al. (US 5609426) at col 22, ln 49-54, and Ko (US 5661550) at col 1 ln 58-61, also teach similar embodiments in which printing is performed without the width detection.

12. Regarding claim 36, Ham discloses "a recording apparatus (see Fig 1) including: carrying section that carries a recording medium (21 of Fig 2A and 3A); detection

section (32 of Fig 3A,B) that can move in a direction that intersects (see Fig 2 and 3 where detection section moves in direction intersecting carrying direction) the carrying direction of said recording medium (vertical direction of Fig 2, right to left of Fig 3) and that is for detecting a width of said recording medium in the direction that intersects the carrying direction of said recording medium (col 4 In 44-57, col 5 In 10-26, col 6 In 31-50); a recording head that ejects liquid to record recording information (31 of Fig 2A,B); and a main computer unit connected to said recording apparatus (col 2 In 4-6); and a controller that, in case that an operation through which said detection section detects the width of said recording medium is set to ON, makes said recording head eject the liquid after performing the operation (col 4 In 40-43, col 6 In 61 – col 7 In 3)...” Ham also discloses that the operation can be set to OFF. Thus Ham meets the claimed invention except “in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation.”

13. It is common in the art to perform printing without detecting the width of the recording medium. For example, Iida teaches “in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation (col 8 In 43-59).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to print even when the width detection operation is not used, as taught by Iida, in the apparatus of Ham to achieve the predictable results of performing faster printing when the size of the paper does not matter, as stated by Iida. It should also be noted that Ito et al. (US 5609426) at col 22, In 49-54, and Ko (US 5661550) at

col 1 ln 58-61, also teach similar embodiments in which printing is performed without the width detection.

14. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of Iida and further in view of Brookner (US 6234694).

15. Regarding claims 25 and 27, Ham in view of Iida discloses the claimed invention as set forth above regarding claim 24. Thus Ham in view of Iida meets the claimed invention except "wherein the ON/OFF of the operation through which said detection section detects the width of said recording medium is settable through a display screen" and "wherein the ON/OFF of the operation through which said detection section detects the width of said recording medium is initially set to either one of ON and OFF in accordance with a resolution at which the recording information is to be recorded to said recording medium."

16. Regarding claim 25, Brookner teaches setting operations "through a display screen (col 4 ln 6-10)." Regarding claim 27, since the limitation set forth in this claim is directed to a method of using the claimed apparatus, the apparatus disclosed by Ham in view of Iida and further in view of Brookner must only be capable of performing such a method step. Since Brookner teaches a user input display screen, with the combination of Ham in view of Iida and further in view of Brookner, a user would be capable of setting the operation "in accordance with a resolution at which the recording information is to be recorded to said recording medium." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to make the operation of Ham in view of Iida settable through a display screen as taught by Brookner to achieve

the predictable result of allowing the user to more easily interact with and operate or set the recording apparatus.

17. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of lida and further in view of Elgee (US 6213659).

18. Regarding claim 28, Ham in view of lida discloses the claimed invention as set forth above regarding claim 24. Thus Ham in view of lida meets the claimed invention except "said recording apparatus further comprises a setting section for setting a size of said recording medium; and wherein a notice is made when the width of said recording medium that has been detected by said detection section is different from a width of the size of said recording medium that has been set with said setting section."

19. Elgee teaches "said recording apparatus further comprises setting section for setting a size of said recording medium (38 and 39 of Fig 2; 148 and 150 of Fig 5); and wherein a notice is made when the width of said recording medium that has been detected by said detection section is different from a width of the size of said recording medium that has been set with said setting section (col 10 ln 7-42)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include setting section and notify the user of a detected width error in the apparatus of Ham in view of lida, as taught by Elgee, to achieve the predictable results of ensuring that the user properly installed the printing medium so as to prevent potentially printing beyond the width of the medium and damaging the printer, as stated by Elgee.

20. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of lida and further in view of Brookner and Elgee.

21. Regarding claim 33, Ham discloses "a carrying section that carries a recording medium (21 of Fig 2A and 3A); a detection section (32 of Fig 3A,B) that can move in a direction that intersects (see Fig 2 and 3 where detection section moves in direction intersecting carrying direction) the carrying direction of said recording medium (vertical direction of Fig 2, right to left of Fig 3) and that is for detecting a width of said recording medium in the direction that intersects the carrying direction of said recording medium (col 4 ln 44-57, col 5 ln 10-26, col 6 ln 31-50); a recording head that ejects liquid to record recording information (31 of Fig 2A,B); and a controller that, in case that an operation through which said detection section detects the width of said recording medium is set to ON, makes said recording head eject the liquid after performing the operation (col 4 ln 40-43, col 6 ln 61 – col 7 ln 3)...wherein ON/OFF of an operation through which said detection section detects the width of said recording medium is settable (col 4 ln 40-43, col 6 ln 61 – col 7 ln 3)... wherein the ON/OFF of the operation through which said detection section detects the width of said recording medium is initially set to either one of ON and OFF in accordance with a type of said recording medium (see Figs 4A,B, where different size recording mediums are shown such that the operation described with regards to claim 24 above can occur or not (col 6 ln 61 – col 7 ln 3) based on the type of recording medium)...before said recording head starts the recording of the recording information to the recording medium, said detection section moves in the direction that intersects the carrying direction of said recording medium and detects the width of said recording medium based on whether or not said recording medium is present (step S14 occurs before S16 of Fig 5); wherein said

detection section (32) and said recording head (31) are both provided in/on a moving member (30 of Fig 3A,B) for moving in the direction that intersects (see Fig 2 and 3 where detection section moves in direction intersecting carrying direction) the carrying direction of said recording medium (vertical direction of Fig 2, right to left of Fig 3); and wherein said detection section has a light-emitting member (12b of Fig 2 and 3) for emitting light and a light-receiving member (32 of Fig 2 and 3) for receiving the light that is emitted by said light-emitting member, and detects whether or not said recording medium is present based on an output value of said light-receiving member (col 3 In 57-60, col 4 In 51-57)." Thus Ham meets the claimed invention except "in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation...a display screen... wherein the ON/OFF of the operation through which said detection section detects the width of said recording medium is initially set to either one of ON and OFF in accordance with a resolution at which the recording information is to be recorded to said recording medium; wherein said recording apparatus further comprises setting section for setting a size of said recording medium; wherein a notice is made when the width of said recording medium that has been detected by said detection section is different from a width of the size of said recording medium that has been set with said setting section."

22. It is common in the art to perform printing without detecting the width of the recording medium. For example, Iida teaches "in case that the operation is set to OFF, makes said recording head eject the liquid without performing the operation (col 8 In 43-59)." It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to print even when the width detection operation is not used, as taught by lida, in the apparatus of Ham to achieve the predictable results of performing faster printing when the size of the paper does not matter, as stated by lida. It should also be noted that Ito et al. (US 5609426) at col 22, ln 49-54, and Ko (US 5661550) at col 1 ln 58-61, also teach similar embodiments in which printing is performed without the width detection

23. Brookner teaches setting operations "through a display screen (col 4 ln 6-10)." Regarding the resolution limitation, since the limitation set forth in this claim is directed to a method of using the claimed apparatus, the apparatus disclosed by Ham in view of Brookner and Elgee must only be capable of performing such a method step. Since Brookner teaches a user input display screen, with the combination of Ham in view of Brookner, a user would be capable of setting the operation "in accordance with a resolution at which the recording information is to be recorded to said recording medium." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to make the operation of Ham settable through a display screen as taught by Brookner to achieve the predictable result of allowing the user to more easily interact with and operate or set the recording apparatus.

24. Elgee teaches "said recording apparatus further comprises setting section for setting a size of said recording medium (38 and 39 of Fig 2; 148 and 150 of Fig 5); and wherein a notice is made when the width of said recording medium that has been detected by said detection section is different from a width of the size of said recording medium that has been set with said setting section (col 10 ln 7-42)." It would have been

obvious to one of ordinary skill in the art at the time of the applicant's invention to include setting section and notify the user of a detected width error in the apparatus of Ham in view of Brookner, as taught by Elgee, to achieve the predictable results of ensuring that the user properly installed the printing medium so as to prevent potentially printing beyond the width of the medium and damaging the printer, as stated by Elgee.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN J. GOLDBERG whose telephone number is (571)272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MATTHEW LUU/
Supervisory Patent Examiner, Art Unit 2861

/Brian J. Goldberg/
Examiner
Art Unit 2861